droite, de la main droite lui prend la main gauche, tourne avec lui, et revient faire de même avec son soutien, pendant que l'on chante le refrain :

J'ai vu la boulangère
Aux écus,
J'ai vu la boulangère.
Vive la boulangère aux écus,
Vive la boulangère !

La boulangère fait ainsi tourner tous ses cavaliers, en revenant chaque fois à son soutien. Toutes les filles doivent remplir successivement le rôle de la boulangère.

EIGHTH GRADE.

KATHARINE M. STILWELL AND JENNIE HALL.

CUBA.

THE idea upon which the work of the eighth grade will be founded is the industrial relations of countries. This basis has been chosen with the hope of making intelligent the interest that children have in current happenings.

It is planned to keep the work specific by studying the questions as illustrated in the conditions existing between Cuba and the United States. This makes necessary a consideration of recent congressional action in regard to sugar bounty, a study of Cuba's governmental history, of her industrial conditions, of the geography that influences industry, and of the scientific processes of sugar manufacture, together with some discussion of the general question of tariff. For convenience, this matter has been partitioned and labeled History, Geography, Science, Number, and Literature. These subjects are outlined below in slight detail.

History.—(1) Congressional action in regard to Cuban reciprocity. (2) Late Cuban war. Rapid story of interference of United States, with a brief study of military movements. (3) Spanish occupation : (*a*) story of discovery ; (*b*) people found there; (*c*) Spanish characteristics (see literature); (*a*) method of government, in Spain, in Cuba ; (*e*) feeling between Cuba and Spain ; (*f*) story of Cuban rebellions. (4) Cuba at present : (*a*) racial constituents of people ; (*b*) industries followed; industrial conditions as compared with those of Chicago, machinery, output, wages, exports and imports ;

(*c*) Government. (5) General advantages of protection, reciprocity, free trade.

Geography.—(1) Cuban products. (*a*) Topographic picture: plains, uplands, mountains; (*b*) Climate; (*c*) Soil: genesis and evolution of island, geologic connection with other islands of Antilles. (2) Rival producers of sugar (mere location of them). (3) Commercial Cuba: (*a*) situation in regard to Mexico, Central America, North America; routes of travel; (*b*) harbors: situation, genesis; (*c*) Important cities: situation, industries, appearance, health.

Literature.—A mediæval Spanish story, yet to be chosen, possibly that of *The Cid.* Some study of the customs and materials of that time will be necessary for the sake of correct imagining. As an aid in this direction, the pupils will model in clay illustrative tiles, and will bake, glaze, and frame them, and take them home.

Science.—(1) Distribution of sugar in plants: (*a*) cane, beet, maple, palm; (*b*) familiar fruits and vegetables that contain sugar. Compare with sugar in milk. (2) Chief commercial sources of sugar, cane and beet. (3) Growth of cane and beet: (*a*) geographical distribution of each, and other possible regions of production; (*b*) Climate: its effect upon growth; study of temperature, moisture, length of season and amount of sunshine; (*c*) Soil: fertilization; (*d*) compare the climatic conditions necessary for growth with our climatic conditions in Chicago (use pupils' records); (*e*) growth of sugar beet and sugar cane in the school garden. (4) Process of obtaining sugar from the cane and from the beet: (*a*) extraction of juice: pressure, diffusion; (*b*) clarifying; (*c*) evaporation and crystallization; (*d*) methods of separating the syrup; (*e*) refining: purifying, by use of albumen, decolorizing with bone-black; these processes will be illustrated by experiment. (5) Uses of sugar: (*a*) as a food; (*b*) sugar cookery. (6) Fermentation of sugar: (*a*) yeast as a cause of fermentation; (*b*) products of fermentation and their uses: alcohol, carbon dioxide.

REFERENCES: Thorp, *Outlines of Industrial Chemistry;* Storer and Lindsay, *Elementary Manual of Chemistry;* Halliburton, *Essentials of Chemical Physiology;* Johnston, *Chemistry of Common Life;* Jackman, *Nature Study; Universal Encyclopedia.*

Number.—Number will be used, not separate from the history, geography, and nature study, but at the time when it will aid in making definite images. It will consist of such problems as occur in measuring the slant and distribution of sunshine, by the use of the skiameter; determining the daily amount of sunshine; measurement of the amount of water in a given rainfall.

As an aid in understanding reciprocity, problems *similar* to the following may be used:

1. Compare the values of the principal products of Cuba. (*Daily News Almanac.*)

2. Find the cost to the planter of producing raw sugar. (Data obtainable from official reports.)

3. What amount is imported into the United States? Find the cost of transportation.

4. What is the import duty on Cuban sugar?

5. The commercial importance of Cuban sugar in United States markets. Compare with (*a*) domestic cane sugar; (*b*) domestic beet sugar; (*c*) total imported sugar.

6. Find the cost of the production of beet sugar. (For data, see *Special Report of the Department of Agriculture*, 1897.)

7. Compare the value of domestic beet sugar with imported beet sugar.

8. Compare the cost of producing beet sugar with the cost of producing cane sugar. Can these sugars compete in our markets on the same basis? Validity of arguments for the protection of beet sugar.

9. What determines the market price of sugar? (*a*) Compare the tariff on Cuban sugar with that on sugar from other countries; (*b*) differential tariff; reciprocity.

10. Compare (*a*) the sugar areas of the world; (*b*) amount of sugar consumed by different countries; (*c*) amount produced by different countries.

PROGRAM.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
1 : 30–2 : 10..	Hall	Hall	Hall	Hall	Hall
2 : 10–2 : 45..	Hall	Hall	Hall	Hall	Hall
2 : 45–2 : 55..	M u s i c	o r	g y m	n a s t i c s	
2 : 55–3 : 30..	Stilwell	Stilwell	Stilwell	Stilwell	Stilwell

NOTE.— Lessons in clay-modeling, manual training, and experiments in science, will be continued through two periods if necessary, the teachers exchanging periods to make up the omitted lesson.